

# **WEST VIRGINIA LEGISLATURE**

## **2016 REGULAR SESSION**

**Originating**

### **House Bill 4730**

(BY ESPINOSA, HAMRICK, KURCABA, HICKS, ELLINGTON,

BLACKWELL, STATLER, ROHRBACH)

[Originating in the Committee on Education;

February 24, 2016.]



1 A BILL to amend the Code of West Virginia, 1931, as amended, by adding thereto a new section,  
2 designated section §18-2-12, relating to computer science courses of instruction; making  
3 legislative findings; requiring submission by state board of plan for implementation of  
4 computer science instruction and learning standards in public schools to legislative  
5 oversight commission prior to 2017 legislative session; and specifying areas of  
6 recommendations to be included in plan.

*Be it enacted by the Legislature of West Virginia:*

1 That the Code of West Virginia, 1931, as amended, be amended by adding thereto a new  
2 section, designated section §18-2-12, to read as follows:

**ARTICLE 2. STATE BOARD OF EDUCATION.**

**§18-2-12. Computer science courses of instruction; learning standards; state board plan  
development.**

1 (a) Legislative findings:

2 (1) Computer technology increasingly is pervasive in nearly every function of society from  
3 consumer products to transportation, communications, electrical infrastructure, logistics,  
4 agriculture, medical treatments, research, security and financial transactions;

5 (2) The U. S. Bureau of Labor Statistics predicts that by 2024, there will be more than  
6 800,000 new jobs in the STEM fields and more than two-thirds of these directly will be in  
7 computing occupations;

8 (3) Studying computer science prepares students to enter many career areas, both within  
9 and outside of computing, teaching them logical reasoning, algorithmic thinking, design and  
10 structured problem solving skills applicable in many contexts from science and engineering to the  
11 humanities and business;

12 (4) Computer science is an established discipline at the collegiate and post-graduate  
13 levels but, unfortunately, computer science concepts and courses have not kept pace in the K-12  
14 curriculum to the point that the nation faces a serious shortage of computer scientists at all levels  
15 that is likely to continue for the foreseeable future; and

16 (5) Organizations such as the Computer Science Teachers Association, the International  
17 Society for Technology in Education and technology industry leaders have developed  
18 recommendations for standards, curriculum and instructional resources for computer technology  
19 learning in K-12 schools.

20 (b) Prior to the 2017 regular legislative session, the state board shall submit a plan to the  
21 Legislative Oversight Commission on Education Accountability for the implementation of  
22 computer science instruction and learning standards in the public schools. The Plan shall include  
23 at least the following:

24 (1) Recommendations for a core set of learning standards designed to provide the  
25 foundation for a complete computer science curriculum and its implementation at the K–12 level  
26 including, but not limited to:

27 (A) Introducing the fundamental concepts of computer science to all students, beginning  
28 at the elementary school level;

29 (B) Presenting computer science at the secondary school level in a way that is both  
30 accessible and worthy of an academic curriculum credit and may fulfill a computer science, math,  
31 or science graduation credit;

32 (C) Encouraging schools to offer additional secondary-level computer science courses  
33 that will allow interested students to study facets of computer science in more depth and prepare  
34 them for entry into the work force or college; and

35 (D) Increase the availability of rigorous computer science for all students.

36 (2) Recommendations for teaching standards and secondary certificate endorsements if  
37 necessary for teachers to deliver curriculum appropriate to meet the standards;

38 (3) Recommendations for units of instruction or courses in academic and vocational  
39 technical settings that complement any existing K–12 computer science and IT curricula where  
40 they are already established, especially the Advanced Placement computer science curricula and  
41 professional IT certifications; and

42           (4) Proposals for implementation of the recommendations over a period not to exceed four  
43 years and estimates of any associated additional costs.

44           (c) Nothing in this section requires adoption or implementation of any specific  
45 recommendation or any level of appropriation by the Legislature.

NOTE: The purpose of this bill is require a plan to be submitted by the State Board to the Legislative Oversight Commission on Education Accountability prior to the 2017 legislative session on the implementation of computer science instruction and learning standards in the public schools. The recommendations in the plan are to include all grade levels, becoming more specific for interested students at the secondary level and include recommendations for teaching standards and endorsements if necessary. The recommendations for implementation are to be over a period of four years and include any associated additional costs. Nothing in the section requires adoption or implementation of any specific recommendation or any level of appropriation by the Legislature.

Strike-throughs indicate language that would be stricken from a heading or the present law and underscoring indicates new language that would be added.